Software Solutions

ASG-SmartTest PLI™

Quick Reference Card

Version 6.0

Product Support	
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Testing Commands

Controlling Execution

TEST | RUN | MONITOR
(**RUN**)

Execute the program until an abend, a breakpoint, or normal completion.

TEST | STEP | OPTIONS: *n*, AUTO
(**STEP** *n* **AUTO**)

Execute *n* PL/I statements. Show each statement as it executes.

TEST | STEP | OVER
(**STEP OVER**)

Execute a CALLed procedure and stop at the statement following the CALL.

TEST | STEP | LABEL
(**STEP LABEL**)

Execute code until the next PROC.

TEST | GO | *target*
(**GO** *target*)

Reposition the chevrons to the specified target where execution will continue.

(**PA1** or **ATTN**)

Interrupt program execution and return control to the programmer (non-CICS).

Rerunning a Test

TEST | CANCEL
(**CANCEL**)

End the current test session. Use RUN or STEP to restart a test.

Setting Breakpoints

TEST | BREAK | PATTERN, BEFORE | *dataitem*, ALL
(**BR** *dataitem* **ALL**)

Set a breakpoint before each *dataitem*.

TEST | BREAK | SUBSET, BEFORE | IO, ALL
(**BR IO ALL**)

Set a breakpoint before all IO statements.

TEST | BREAK | SUBSET, AFTER | CALL, NEXT
(**BR AFTER CALL**)

Set a breakpoint after the next CALL.

(**BR** *line command*)

Set a breakpoint on a specific line.

TEST | TESTPOINT
(**TESTPOINT**)

Set breakpoints with an impact dataset.

Displaying Data Values

(**ZD**, **ZG** *line command*)

Display dataname definitions, values, and addresses.

(**ZO** *line command*)

Remove lines displayed as a result of ZD and ZG commands.

(**K**, **KG**, **KH** *line command*)

Keep specified items displayed at top of the screen for monitoring or changing data.

Data window displays are affected by the DATA, HEX, KEEP, VALUES, SCALE, and ZEROFILL operands. Change using:

OPTIONS | MODES

Type over the value displayed in the data window to change the values of a data field.

Detecting Storage Modification

TEST | STOP | *dataname*
(**STOP** *dataname*)

Stop execution before the dataname value is modified.

Adding Logic (Pseudo Code)

ADD	IF/ELSE	pslabel.
MOVE	SUBTRACT	77 level name
GO TO	Define label	NEXT SENTENCE
&COUNT	Contains the number of times a line of pseudo code is executed.	
BREAK	Suspend program execution.	

Recording Single Program Coverage

LIST | TEST SESSION TAILORING | COUNTS YES
(**LI TA**ilor)

Start the recording of statement counts.

LIST | EXECUTION COUNTS | SOURCE
(**LI CO**unts)

Display a summary showing how many times each statement was executed.

LIST | EXECUTION COUNTS | LABEL | DESCENDING
(**LI CO**unts **LAB**)

Display a summary showing how many times each PROC was executed.

(**LP CO**unts)

Copy the entire statement counts of a program to the LIST file for printing.

Recording the Execution Path

OPTIONS | MODES | BACKTRACK ON
(**SET TRACK VALUE**)

To enable collection.

LIST | EXECUTION TRACKING | FORMAT
(**LI TR**acking)

Display the execution path taken by the program paragraph and source statement in execution sequence.

(**LP TR**acking)

Copy the execution path taken to the LIST file for printing.

Viewing Multiple Programs

VIEW | QUALIFY | *module.program*
(**Q** *module.program*)

Qualify to the load module and program for viewing.

(**Q** *)

Display program being tested after viewing another program.

VIEW | QUALIFY | CANCEL ALL QUALIFICATIONS
(**Q CAN ALL**)

End viewing of programs that have been qualified.

Reviewing Execution History

OPTIONS | MODES | BACKTRACK ON
(**SET BA**cktrack **ON**)

Turn the BACKTRACK recording mode ON. The BACKTRACK Recording and Review facilities provide a complete picture of execution history, with data values.

LIST | BACKTRACK HISTORY
(**LI BA**cktrack)

List the statements in execution history that modified a specified variable.

TEST | RUN | BACKWARD, *dataitem*
(**RUN BACK TO** *dataitem*)

Review execution history to identify the previous modification to the variable *dataitem*. BACKTRACK recording must be on to use this function.

The direction of the BACKTRACK Review facility can be set using the RUN and STEP facilities.

Viewing CUA-generated Commands

OPTIONS| MODES | LEARN ON
(**SET LEARN ON**)

Show commands built from the CUA pull-down and popup windows.

Program Understanding Commands

Finding Functions in a PL/I Program

SEARCH | SUBSET | STORAGE
(**FX ST**orage)

Highlight and tag all statements that affect storage control.

Printing Functions in a PL/I Program

SEARCH | SUBSET | STORAGE
(**LP ST**orage)

Write all statements that affect storage control to the LIST file for printing.

Subsets

Predefined categories of subsets that can be applied to PL/I programs:

ASsignment	EXECutable	ONBlock
BLOcks	EXIt	ONCondition
Call	Goto	Output
CONditional	INPUT	PROcedure
DEFinition	IO	STORage
ENDProcedure	LABel	STructure
Entry	NONExclude	TESted
Exclude	NONHighlight	UNTested

Linking to Other ASG Products

TEST | ALLIANCE
(**ALLIANCE**)

Initiate a link to ASG-Alliance.

CICS Primary Commands

LIST | CICS FEATURES | EIB
(**LI EI**b)

Show a formatted display of the EXEC Interface Block (EIB) for viewing and updating.

LIST | CICS FEATURES | FILES
(**LI FI**le)

Display the File Service Menu used to select the type of CICS File Records to be processed.

LIST | CICS FEATURES | LIMITS
(**LI LI**mits)

Display the Transaction Limits and Options screen where CICS testing restrictions and options can be viewed and maintained.

TEST | CICS FEATURES | TABLES
(**LI TAB**)

Provide access to the tables used to set monitoring rules.

TEST | CICS NEWCOPY | *module*
(**NEWCOPY**)

Perform a CICS NEWCOPY of the module specified in the current region.

TEST | RUN | *tran-id*
(**RUN** *tran-id*)

Initiate a transaction ID.

VIEW | CICS SHOW
(**SHOW**)

Redisplay last user application screen during an active test session.

VIEW | TOGGLE
(**TOGGLE**)

Switch from SmartTest session to connected CICS session.

OPTIONS | MODES | STOPEXEC ON
(**SET STOPEXEC**)

Stop program execution before each EXEC CICS request.

OPTIONS | MODES | STOPHAND ON
(**SET STOPHAND**)

Stop program execution after an EXEC CICS Handle condition is raised.

IMS Primary Commands

LIST | IMS/DC QUEUES
(**LI Q**ueue)

Display the Processing Queue List Screen, which lists categories of IMS processing queues.

VIEW | TOGGLE
(**TOGGLE**)

Switch from the SmartTest session to the IMS session.

SmartTest-supported IMS Commands

(**/EXIT**)

Exit a conversational transaction.

(**/FOR**)

Invoke Message Format Service (MFS) to display a screen format.

(**/RCL**)

Close or terminate IMS connection.

(**/TOGGLE**)

Switch from the IMS session to SmartTest.

Assembler Functions

OPTIONS | MODES | REGISTERS ON
(**SET REG ON**)

Display and/or modify contents of the general registers during a test session. Modified registers are highlighted.

TEST | STOP | *target*
(**STOP** *target*)

Suspend the test session before any modification of target (target can be a dataname or absolute address).

LIST | MEMORY | *area*
(**LI ME**m)

Display and modify memory area.

LIST | ALL | INTERCEPTS
(**LI I**nt)

Display the intercept list of LINKed, ATTACHed, and dynamically CALLed modules (non-CICS tests).

(**ZA** *line command*)

Display the object code for a specific statement.

VIEW | ZOOMDATA | R13?+8
(**ZD R13?+8**)

Display the data at 8 bytes offset from the address in register 13, with the ? indicating 31-bit indirect addressing.

Changing Environments

FILE | SETUP TEST ENVIRONMENT | SELECT TEST ENV
(**ENV**)

Display the Environment Setup Menu screen.

LIST | TEST SESSION TAILORING
(**LI TA**ilor)

Display/change test features requested for specific modules and programs.

FILE | SETUP TEST ENVIRONMENT | SETUP CURRENT ENV
(**SETUP**)

Display the Test Session Setup screen.

LIST | PROFILES
(**LI PR**ofile)

Save, select, copy, or delete test session setups.

VIEW | PROGRAM SOURCE/OBJECT
(**VIEW**)

Display the Program View screen.

Compile/Analyze Source Code

Option 1

When your compile/link JCL resides in a PDS or sequential dataset:

1. FILE | ANALYZE
   (**AN**)

   Displays the File - Analyze Submit screen.

2. Type the applicable dataset name in the Compile and Link JCL and AKR data set name fields. Make sure the ASG-SmartTest Analyze Feature and the Compile field contain a Y value.

3. Submit or Edit the temporarily altered JCL. **Note**: If you make changes while in the Edit option, type `SUB` within the Editor to save changes.

Option 2

From the edit session of the compile JCL, type `VIASUB` in the primary command area to display the Analyze Submit screen. Next, follow Steps 2 and 3 from Option 1. (You do not need to specify the compile/link JCL.)

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